

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Keisha Douglas

Timestamp: [year=2008; month=9; day=19; hr=15; min=51; sec=10; ms=3;]

=====

Application No: 10535624 Version No: 2.0

Input Set:

Output Set:

Started: 2008-08-22 13:44:53.303
Finished: 2008-08-22 13:44:55.276
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 973 ms
Total Warnings: 15
Total Errors: 0
No. of SeqIDs Defined: 15
Actual SeqID Count: 15

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (1)
W 402	Undefined organism found in <213> in SEQ ID (2)
W 402	Undefined organism found in <213> in SEQ ID (3)
W 402	Undefined organism found in <213> in SEQ ID (4)
W 402	Undefined organism found in <213> in SEQ ID (5)
W 402	Undefined organism found in <213> in SEQ ID (6)
W 402	Undefined organism found in <213> in SEQ ID (7)
W 402	Undefined organism found in <213> in SEQ ID (8)
W 402	Undefined organism found in <213> in SEQ ID (9)
W 402	Undefined organism found in <213> in SEQ ID (10)
W 402	Undefined organism found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (12)
W 402	Undefined organism found in <213> in SEQ ID (13)
W 402	Undefined organism found in <213> in SEQ ID (14)
W 402	Undefined organism found in <213> in SEQ ID (15)

SEQUENCE LISTING

<110> Lee, In-Hee
Son, Seok-Min
Jang, Woong-Sik
Kim, Kyu-Nam

<120> Antimicrobial Peptide Isolated From Halocynthia Aurantium

<130> 2393.0010000

<140> 10535624
<141> 2005-10-25

<150> PCT/KR2002/002195
<151> 2002-11-22

<160> 15

<170> PatentIn version 3.3

<210> 1
<211> 18
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(1)
<223> 18mer of halocydin

<400> 1

Trp Leu Asn Ala Leu Leu His His Gly Leu Asn Cys Ala Lys Gly Val
1 5 10 15

Leu Ala

<210> 2
<211> 15
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(1)
<223> 15mer of halocydin

<400> 2

Trp Leu Asn Ala Leu Leu His His Gly Leu Asn Cys Ala Lys Gly
1 5 10 15

<210> 3
<211> 17
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(17)
<223> 17mer of halocydin

<400> 3

Trp Leu Asn Ala Leu Leu His His Gly Leu Asn Cys Ala Lys Gly Val
1 5 10 15

Leu

<210> 4
<211> 16
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(16)
<223> 16mer of halocydin

<400> 4

Trp Leu Asn Ala Leu Leu His His Gly Leu Asn Cys Ala Lys Gly Val
1 5 10 15

<210> 5
<211> 14
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(14)
<223> 14mer of halocydin

<400> 5

Trp Leu Asn Ala Leu Leu His His Gly Leu Asn Cys Ala Lys
1 5 10

<210> 6
<211> 13
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(13)
<223> 13mer of halocydin

<400> 6

Trp Leu Asn Ala Leu Leu His His Gly Leu Asn Cys Ala
1 5 10

<210> 7
<211> 12
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(12)
<223> 12mer of halocydin

<400> 7

Trp Leu Asn Ala Leu Leu His His Gly Leu Asn Cys
1 5 10

<210> 8
<211> 18
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(18)
<223> 18mer congener of halocydin

<400> 8

Trp Leu Asn Ala Leu Leu Lys Lys Gly Leu Asn Cys Ala Lys Gly Val
1 5 10 15

Leu Ala

<210> 9
<211> 19

<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(19)
<223> 19mer of halocydin

<400> 9

Lys Trp Leu Asn Ala Leu Leu His His Gly Leu Asn Cys Ala Lys Gly
1 5 10 15

Val Leu Ala

<210> 10
<211> 19
<212> PRT
<213> Halocynthia aurantium

<220>
<221> PEPTIDE
<222> (1)..(19)
<223> 19mer congener of halocydin

<400> 10

Lys Trp Leu Asn Ala Leu Leu Lys Lys Gly Leu Asn Cys Ala Lys Gly
1 5 10 15

Val Leu Ala

<210> 11
<211> 18
<212> PRT
<213> Halocynthia aurantium

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> X is tyrosine, valine, isoleucine, leucine, methionine,
phenylalanine or tryptophane

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> X is arginine, lysine, histidine, asparagine, or glutamine

```
<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> X is glycine, serine, alanine, or threonine

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> X is tyrosine, valine, isoleucine, leucine, methionine,
phenylalanine or tryptophane

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> X is tyrosine, valine, isoleucine, leucine, methionine,
phenylalanine or tryptophane

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> X is arginine, lysine, or histidine

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> X is arginine, lysine, or histidine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> X is glycine, serine, alanine, or threonine

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> X is tyrosine, valine, isoleucine, leucine, methionine,
phenylalanine or tryptophane

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> X is arginine, lysine, histidine, asparagine, or glutamine

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> X is glycine, serine, alanine, or threonine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> X is arginine, lysine, or histidine

<220>
<221> MISC_FEATURE
<222> (15)..(15)
<223> X is glycine, serine, alanine, or threonine
```

<220>
<221> MISC_FEATURE
<222> (16)..(16)
<223> X is tyrosine, valine, isoleucine, leucine, methionine,
phenylalanine or tryptophane

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> X is tyrosine, valine, isoleucine, leucine, methionine,
phenylalanine or tryptophane

<220>
<221> MISC_FEATURE
<222> (18)..(18)
<223> X is glycine, serine, alanine, or threonine

<400> 11

Trp Xaa Cys Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa

<210> 12
<211> 18
<212> PRT
<213> Halocynthia aurantium

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> X is arginine, lysine, histidine, asparagine, or glutamine

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> X is alanine, serine, or glycine

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (6)..(6)

```
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> X is asparagine, glutamine, histidine, lysine, or arginine

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> X is asparagine, glutamine, histidine, lysine, or arginine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> X is alanine, serine, or glycine

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> X is arginine, lysine, histidine, asparagine, or glutamine

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> X is alanine, serine, or glycine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> X is asparagine, glutamine, histidine, lysine, or arginine

<220>
<221> MISC_FEATURE
<222> (15)..(15)
<223> X is alanine, serine, or glycine

<220>
<221> MISC_FEATURE
<222> (16)..(16)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (18)..(18)
<223> X is alanine, serine, or glycine
```

<400> 12

Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa

<210> 13

<211> 15

<212> PRT

<213> Halocynthia aurantium

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> X is glycine, serine, alanine, or threonine

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> X is tyrosine, valine, isoleucine, leucine, methionine, phenylalanine, or tryptophane

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> X is tyrosine, valine, isoleucine, leucine, methionine, phenylalanine, or tryptophane

<220>

<221> MISC_FEATURE

<222> (4)..(4)

<223> X is arginine, lysine, or histidine

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> X is arginine, lysine, or histidine

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> X is glycine, serine, alanine, or threonine

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> X is tyrosine, valine, isoleucine, leucine, methionine, phenylalanine, or tryptophane

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> X is arginine, lysine, histidine, asparagine, or glutamine

<220>

<221> MISC_FEATURE

<222> (10)..(10)

<223> X is glycine, serine, alanine, or threonine

<220>

<221> MISC_FEATURE

<222> (11)..(11)

<223> X is arginine, lysine, or histidine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> X is glycine, serine, alanine, or threonine

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> X is tyrosine, valine, isoleucine, leucine, methionine, phenylalanine, or tryptophane

<220>

<221> MISC_FEATURE

<222> (14)..(14)

<223> X is tyrosine, valine, isoleucine, leucine, methionine, phenylalanine, or tryptophane

<220>

<221> MISC_FEATURE

<222> (15)..(15)

<223> X is glycine, serine, alanine, or threonine

<400> 13

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa

1 5 10 15

<210> 14

<211> 15

<212> PRT

<213> Halocynthia aurantium

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> X is alanine, serine, or glycine

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> X is leucine, isoleucine, or valine

<220>

```
<221> MISC_FEATURE
<222> (3)..(3)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> X is asparagine, glutamine, histidine, lysine, or arginine

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> X is asparagine, glutamine, histidine, lysine, or arginine

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> X is alanine, serine, or glycine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> X is arginine, lysine, histidine, asparagine, or glutamine

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> X is alanine, serine, or glycine

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> X is asparagine, glutamine, histidine, lysine, or arginine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> X is alanine, serine, or glycine

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> X is leucine, isoleucine, or valine

<220>
<221> MISC_FEATURE
<222> (15)..(15)
```

<223> X is alanine, serine, or glycine

<400> 14

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

<210> 15

<211> 15

<212> PRT

<213> Halocynthia aurantium

<400> 15

Ala Leu Leu His His Gly Leu Asn Cys Ala Lys Gly Val Leu Ala
1 5 10 15